UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,399	12/30/2003	Adam J. Weissman	16113-422001	7571

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EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<table>
<tr><td rowspan="2">Office Action Summary</td><td>Application No.
10/748,399</td><td>Applicant(s)
WEISSMAN ET AL.</td></tr>
<tr><td>Examiner
Paul Kim</td><td>Art Unit
2161</td></tr>
</table>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE **3** MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>22 March 2007</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-42</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-42</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____ .

DETAILED ACTION

1.   This Office action is responsive to the following communication: Request for Continued

Examination on 22 March 2007.

2.   Claims 1-42 are pending and present for examination.

Continued Examination Under 37 CFR 1.114

3.   A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR

1.17(e), was filed in this application after final rejection. Since this application is eligible for continued

examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the

finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's

submission filed on 22 March 2007 has been entered.

Response to Amendment

4.   Claims 1-10, 12-19, 20-30, and 31-40 have been amended.

5.   Claims 41-42 have been added.

6.   No claims have been cancelled.

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented
> and the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

7.   **Claims 1-38** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wical et al (U.S.

Patent No. 6,101,515, hereinafter referred to as WICAL), filed on 31 May 1996, and issued on 8 August

2000, in further view of Wical et al (U.S. Patent No. 6,038,560, hereinafter referred to as WICAL '560),

filed on 21 May 1997, and issued on 14 March 2000.

8.   **As per independent claims 1 and 20**, WICAL, in combination with WICAL '560, discloses:

A method, comprising:

receiving, from a user {See WICAL '560, C4:L39-44, wherein this reads over "[a] user, by processing documents in the content processing system described herein, may compile a knowledge base that associates terms of the documents with categories of a classification system to develop contextual associations for terminology"}, a primary term representing a first concept to be added to a network of interrelated concepts {See WICAL, col. 4, lines 49-65, wherein this reads over "the learning system may select the high level category 'business and economics'"}, wherein a concept comprises a normalized semantic representation;

receiving, from the user, at least one related term associated with the primary term {See WICAL, col. 4, lines 49-65, wherein this reads over "an example input term, 'short-term'"; and See WICAL '560, C29-32, wherein this reads over "the search and retrieval system 100 receives, as input, user queries, and generates, as output, search results which, depending upon the mode of operation, identifies categories and documents"};

representing the association between the primary term and the at least one related term to the user {See WICAL '560, C5:L1-9, wherein this reads over "identify the potential existence of a document by displaying associated categories and themes"} on a user interface characterizing the first concept {See WICAL '560, Figures 10A-B};

receiving at least one relationship between the first concept and a second concept {See WICAL, col. 5, lines 16-19, wherein this reads over "[t]he learning system classifies the term 'short-term' in the 'economics' category"};

receiving a relationship type characterizing the at least one relationship {See WICAL, Figure 3; col. 3, lines 2-29, wherein this reads over "[t]he categories are arranged in a hierarchical structure that includes a plurality of levels"; and col. 4, lines 43-45, wherein this reads over "the parent category . . . includes the child categories"};

receiving a strength value characterizing the relationship {See WICAL, col. 10, lines 34-40, wherein this reads over "reflects the strength of the classification of the term for the category"}; and

representing the at least one relationship and the relationship type to the user on the user interface {See WICAL '560, Figure 3; and C10:L36-62, wherein this reads over "[t]he example presentation shown in FIG. 3 provides a global view of the response to the users query"};

receiving a second user request to add the first concept to the network {See WICAL '560, C11:L66-C12:L17, wherein this reads over "the linguist develops cross reference associations when two terms/ categories have a strong linguistic, semantic, or usage relationship"}; and

in response to the second user request, adding the first concept to the network {See WICAL, col. 4, lines 25-28, wherein this reads over "[i]n addition to identifying the proper high level category to learn a term, the learning system determines the proper level of the hierarchy under the high level category to classify the term"}.

While WICAL may fail to expressly disclose the use of an user interface to represent term relationships, WICAL '560 discloses the use of an interface to provide a global view of relationships between concepts. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above invention suggested by WICAL with the invention as disclosed by WICAL '560.

One of ordinary skill in the art would have been motivated to do this modification so that the relationships may be displayed for the user on a user interface.

9.   **As per dependent claims 2 and 21**, WICAL, in combination with WICAL '560, discloses:

The method of claim 1, wherein representing the association comprises:

> displaying a concept view {See WICAL, col. 17, lines 26-28,wherein this reads over "the learning system includes a user interface that allows the user to select a number of terms for which the user desires to manually verify"}.

10.   **As per dependent claims 3 and 22**, WICAL, in combination with WICAL '560, discloses:

> The method of claim 1, further comprising receiving information characterizes a part of speech of the first concept {See WICAL, col. 19, lines 38-42, wherein this reads over "the lexicon defines whether a particular word is a noun, a verb, an adjective, etc."}.

11.   **As per dependent claims 4, 15, 23, and 34**, WICAL, in combination with WICAL '560, discloses:

> The method of claim 1, wherein the relationship comprises a hierarchical relationship or a lateral bond that indicates a proximity of the first concept to the second concept in semantic space {See WICAL, Figures 1b, 3, and 7; and col. 9, lines 38-52, wherein this reads over "the semantic/lexical relationship between categories, is first measured in an up/down direction, and then, if applicable, in a left/right direction"}.

12.   **As per dependent claims 5, 16, 24, 35, and 42**, it would be inherent for the relationship between the terms and categories to take the form of one of the following: kind of, has kind, part of, has part, member of, has member, substance of, has substance, product of, and has product. That is, in order for a term to be considered within a category, the relationship will minimally require that the term at least be either a "member of" the category.

13.   **As per dependent claims 6, 17, 25, and 36**, WICAL, in combination with WICAL '560, discloses:

The method of claim 1, further comprising receiving information <u>characterizing</u> a frequency of the primary term {See WICAL, col. 11, lines 6-9, wherein this reads over "[t]he learning system utilizes the cumulative total number of documents classified into a particular category for a term"}.

14.   **As per dependent claims 7, 18, 26, and 37**, WICAL, in combination with WICAL '560,

discloses:

The method of claim 1, further comprising receiving information <u>characterizing</u> a likelihood that the primary term and the related terms imply the first concept {See WICAL, col. 11, lines 52-54, wherein this reads over "a cumulative classification strength is assigned to each branch of categorization schema"; and lines 56-57, wherein this reads over "the learning system also includes determining whether the term is worth learning"}.

15.   **As per dependent claims 8, 19, 27 and 38**, WICAL, in combination with WICAL '560, discloses:

The method of claim 1, further comprising receiving information <u>characterizing</u> a breadth of the first concept {See WICAL, col. 7, lines 35-37, wherein this reads over "[t]he knowledge catalog, used to classify terms for learning, provides a unique infrastructure to accurately represent categories that define knowledge" and "a set of static ontologies"}.

16.   **As per dependent claims 9 and 28**, WICAL, in combination with WICAL '560, discloses:

The method of claim 1, further comprising receiving information <u>indicating</u> that the first concept is offensive {See WICAL, col. 11, lines 62-63, wherein this reads over "[t]he learning system analyzes the contextual data to determine whether the term is too ambiguous to learn"}.

17.   **As per dependent claims 10 and 29**, WICAL, in combination with WICAL '560, discloses:

The method of claim 1, further comprising receiving user data {See WICAL, col. 17, lines 9-10, wherein this reads over "a user may therefore re-categorize one or more phrases"} <u>further describing the first concept</u>.

18.   **As per dependent claims 11 and 30**, WICAL, in combination with WICAL '560, discloses:

The method of claim 1, further comprising receiving context information {See WICAL, col. 2, lines 3-5, wherein this reads over "[d]uring an accumulation phase, the learning system accumulates contextual data from the set of documents for the term"}.

19.   **As per independent claims 12 and 31**, WICAL, in combination with WICAL '560, discloses:

A method, comprising:

receiving a request to edit a first concept in a network of interrelated concepts {See WICAL, col. 17, lines 5-9, wherein this reads over "a user that manually checks the categorization results of the learning system process brings to bear a broader semantic context"; and lines 26-28, wherein this reads over "allows the user to select a number of terms for which the user desires to manually verify"} <u>wherein a concept comprises a normalized semantic representation;</u>

representing the first concept {See WICAL, col. 17, lines 26-28,wherein this reads over "the learning system includes a user interface that allows the user to select a number of terms for which the user desires to manually verify"} on a display that includes a collection of one or more terms that express the first concept and a description of one or more existing relationships between the first concept and other concepts in the network {See WICAL '560, Figures 3 and 10A-B};

receiving, from a user, at least one new relationship between the first concept and a second concept {See WICAL '560, C6:L7-21, wherein this reads over "[t]he search and retrieval system 100 permits a user to subsequently augment the classification and contextual information through content processing of the documents input by the user"};

receiving a relationship type characterizing a type of the at least one new relationship {See WICAL, Figure 3; col. 3, lines 2-29, wherein this reads over "[t]he categories are arranged in a hierarchical structure that includes a plurality of levels"; and col. 4, lines 43-45, wherein this reads over "the parent category . . . includes the child categories"};

receiving a strength value characterizing a strength of the at least on new relationship {See WICAL, col. 10, lines 34-40, wherein this reads over "reflects the strength of the classification of the term for the category"};

updating the first concept to reflect the at least one new relationship, the relationship type, and the strength value; {See WICAL, col. 4, lines 25-28, wherein this reads over "[i]n addition to identifying the proper high level category to learn a term, the learning system determines the proper level of the hierarchy under the high level category to classify the term"; and col. 17, lines 9-10, wherein this reads over "a user may therefore re-categorize one or more phrases"}; and

representing the updated first concept on the display, wherein the display further includes a description of the at least one new relationship {See WICAL '560, Figure 3; and C10:L36-62, wherein this reads over "[t]he example presentation shown in FIG. 3 provides a global view of the response to the users query"}.

While WICAL may fail to expressly disclose the use of an user interface to represent term relationships, WICAL '560 discloses the use of an interface to provide a global view of relationships between concepts. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above invention suggested by WICAL with the invention as disclosed by WICAL '560.

One of ordinary skill in the art would have been motivated to do this modification so that the relationships may be displayed for the user on a user interface.

20.   **As per dependent claims 13 and 32**, WICAL, in combination with WICAL '560, discloses:

The method of claim 12, further comprising receiving a new strength value for one of the existing relationships between the first concept and a third concept {See WICAL, col. 17, lines 48-53, wherein this reads over "classification strengths are generated from the initial bottom to top analysis of the categorization schema. During the subsequent top to bottom analysis, the learning system,

for this example categorization schema, eliminates nodes that contain insufficient data (e.g. noise nodes)"}.

21.   **As per dependent claims 14 and 33**, WICAL, in combination with WICAL '560, discloses:

The method of claim 12, further comprising receiving <u>a new</u> relationship <u>type</u> for <u>one of the</u> existing <u>relationships</u> between the first concept and <u>a third</u> concept {See WICAL, col. 17, lines 9-10, wherein this reads over "a user may therefore re-categorize one or more phrases"}.

22.   **As per independent claim 41**, WICAL, in combination with WICAL '560, discloses a user display as recited in the present claim. See WICAL ' 560, Figures 9C and 10A-B.

Response to Arguments

2.   Applicant's arguments with respect to claims 1, 12, 20, 31, and 41 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

23.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

24.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Kim whose telephone number is (571) 272-2737. The examiner can normally be reached on M-F, 9am - 5pm.
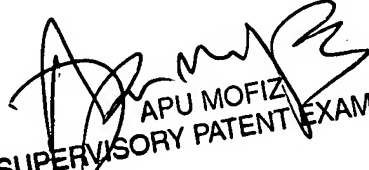
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,

Jeffrey Gaffin can be reached on (571) 272-4146. The fax phone number for the organization where this

application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application

Information Retrieval (PAIR) system. Status information for published applications may be obtained from

either Private PAIR or Public PAIR. Status information for unpublished applications is available through

Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at

866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or

access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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APU MOFIZ
SUPERVISORY PATENT EXAMINER